## **EAST Search History**

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S1	1	US20050234962A1	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR .	OFF	2007/06/18 16:06
S2	24	("20020073245" "20020078437" "2 0030014561" "20030033520" "2003 0051070" "20030204833" "5815708 " "5822607" "6115550" "6370655"  "6405316" "6539495").PN.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/06/18 18:24
S3	2	"6108715".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/06/18 18:57
S4	94	("20050234962" "7203802" "20040221030" "4987480" "5506624" "5619597" "6112304" "4953084" "5226117" "5713010" "5895492" "6047363" "6157993" "6185563" "4392767" "5428802" "5880456" "5939707" "6027026" "5197144" "5708843" "5961656" "6088705" "6253193" "6363488" "6389402" "6427140" "6601020" "6775644" "20040039550" "4875588" "4298927" "4311876" "4789255" "4934823" "5014127" "5438575" "5530854" "5606610" "5657180" "5729464" "5778371" "5799299" "5877962" "6031758" "6178536" "6192368" "6236601" "6317371" "6381324" ).pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/06/19 13:05
S5	0	("2003/0204833").URPN.	USPAT	OR	OFF	2007/06/19 13:04
<b>S6</b>	173	(load\$3 with new with code with run\$4)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/06/20 13:25
<b>S7</b>	11	S6 and (load\$3 with increment\$4)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/06/20 13:26
S8	45	S6 and ((updat\$3 or upgrad\$3) with application)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/06/20 13:34

## **EAST Search History**

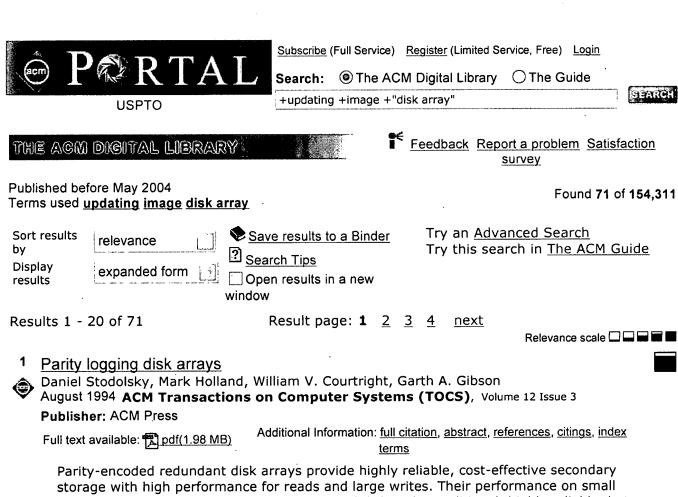
S9	47	S6 and ((updat\$3 or upgrad\$3) with application\$1)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/06/20 13:34
S10	6	(increment\$4 with updat\$3 with application\$1 with run\$4)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/06/20 14:21
S11	51	(increment\$4 with updat\$3 with during with execution\$1)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/06/20 14:21
S12	9	(updat\$3 with image\$1 with (disk adj array))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF .	2007/06/20 14:27
S13	926	717/168.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/06/20 16:17
S14	220	717/169.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/06/20 16:17
S15	534	717/170.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/06/20 16:17
S16	375	717/171.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/06/20 16:17
S17	212	717/172.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/06/20 16:17
S18	2625	711/114.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/06/20 16:17

## **EAST Search History**

S19	701	711/150.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/06/20 16:17
S20	2016	711/162.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/06/20 16:17

6/20/07 4:18:36 PM C:\Documents and Settings\qnahar\My Documents\EAST\Workspaces\10826229.wsp Page 3

SPARCE



storage with high performance for reads and large writes. Their performance on small writes, however, is much worse than mirrored disks—the traditional, highly reliable, but expensive organization for secondary storage. Unfortunately, small writes are a substantial portion of the I/O workload of many important, demanding applications such as on-line transaction processing. This paper presents

Keywords: RAID, disk arrays

2 RAID: high-performance, reliable secondary storage

Peter M. Chen, Edward K. Lee, Garth A. Gibson, Randy H. Katz, David A. Patterson June 1994 ACM Computing Surveys (CSUR), Volume 26 Issue 2

Publisher: ACM Press

Full text available: pdf(3.60 MB)

Additional Information: full citation, abstract, references, citings, index terms, review

Disk arrays were proposed in the 1980s as a way to use parallelism between multiple disks to improve aggregate I/O performance. Today they appear in the product lines of most major computer manufacturers. This article gives a comprehensive overview of disk arrays and provides a framework in which to organize current and future work. First, the article introduces disk technology and reviews the driving forces that have popularized disk arrays: performance and reliability. It discusses the tw ...

Keywords: RAID, disk array, parallel I/O, redundancy, storage, striping

Parity logging overcoming the small write problem in redundant disk arrays

Daniel Stodolsky, Garth Gibson, Mark Holland

May 1993 ACM SIGARCH Computer Architecture News, Proceedings of the 20th annual international symposium on Computer architecture ISCA '93, Volume